Table 9 Region Data

Region	N	Immediate Availability	Ability to Order	Mean Pick-Up Time (hours)	Levonorgestrel ECP Availability
West	122	22/122 (18.0%)	88 / 100 (88.0%)	33.1	107/121 (88.4%)
Midwest	188	11/188 (5.9%)	153 / 174 (87.9%)	36.5	164/188 (87.2%)
South	337	20/337 (5.9%)	252 / 311 (81.0%)	38.2	252/332 (75.9%)
Northeast	86	9/86 (10.4%)	63 / 74 (85.1%)	30.0	73/86 (84.9%)

West: Washington, Oregon, California, Nevada, Idaho, Montana, Wyoming, Utah, Colorado, Arizona, New Mexico, Hawaii, Alaska
Midwest: North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Michigan, Illinois, Indiana, Ohio
South: Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Tennessee, Kentucky, West Virginia, Virginia, Maryland
Northeast: Maine, Vermont, New Hampshire, Massachusetts, Connecticut, New Jersey, Delaware, New York

8. Comparing the Vulvar, Perineal and Gut Microbiotas of Premenarcheal Girls With and Without Vulvar Lichen Sclerosis: A Pilot Case-control Study

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Background: The polyetiologic skin disorder lichen sclerosus (LS) is one of the most frequent pediatric vulvar disorders. The vulvar, perineal and gut microbiotas of girls with LS may be altered based on their condition or may be involved in the pathogenesis of LS. Yet to our knowledge, there are no existing data regarding these associations. The aim of this pilot study was to assess the feasibility of evaluating the vulvar, perineal and gut microbiotas of premenarcheal LS cases and controls.

Methods: We enrolled premenarcheal girls diagnosed with LS (n=5), with non-specific vulvovaginitis (n=5) or without dermatologic vulvar findings (n=3). Parental consent was obtained, a questionnaire was completed, separate swabs from the perineum and between the labia minora and majora were collected in RNALater, and stool collection kits were provided for at-home collection. All vulvar samples were stored at 4°C for up to 24 hrs and then placed at −80°C. Stool samples were sent back to the lab within 24 hours of collection and stored at 4°C. Total genomic DNA was extracted from all samples using an enzymatic and mechanical lysis approach, and purified using the QIAmp DSP DNA mini kit. Microbiota profiling was then performed using PCR amplification of the V3V4 hypervariable region of the 16S rRNA gene and sequencing using Illumina MiSeq 300bp PE. Sequences were processed and analyzed using QIIME and Phyloseq implemented in R.

Results: A total of 56 vulvar, perineal and stool samples were 16S-sequenced, yielding a total of 10,533 species-level operational taxonomic units (OTUs) across all samples. No significant differences in alpha-diversity among vulvar and perineal swab samples were observed across study groups. Some differences in alpha diversity in stool samples across study groups were observed; however, the sample size was too small to evaluate statistical significance. In stool samples, bacteria from the Bacteroides, Lactobacillus, Gardnerella, Blautia, Dialister, Clostridiales and Streptococcus genera were present at higher relative abundance in LS cases compared to the other groups. Ruminococcus and Escherichia were detected at higher relative abundance in the stool of girls diagnosed with non-specific vulvovaginitis compared to the other groups.

Conclusions: This pilot study confirms the feasibility of recruitment, specimen collection and microbiota analysis among premenarcheal girls with vulvar complaints. Our datastudies regarding the potential influence of the vulvar and gut microbiotas in the development or prevention of LS.

9. Birth Control Tales: Testing of Theory Based Contraception Educational Comics for Adolescents

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Background: In the United States, adolescents account for 15% of unintended pregnancies annually. A study by McNicol suggests that educational comics can improve comprehension of factual information regarding health conditions, as well as provide a better understanding of the social and psychological aspects of a given illness. Educational comics on contraception may be a beneficial tool in targeting the adolescent population to promote awareness and knowledge, and to increase use as well as compliance with various birth control methods.

Methods: This is an IRB approved study that employs a pretest/post-test design to evaluate a set of four educational comics that focus on the topics of the intrauterine device, the birth control implant, the birth control shot, and combined hormonal contraceptives (pill, patch, and ring). The target population is English speaking women aged 15-18. Teens who are currently pregnant or have used the desired birth control option in the past are excluded.

Subjective knowledge on a contraceptive option is assessed pre and post exposure to that birth control comic. Social and demographic variables are also collected. Comparison of knowledge between pre and post time points for the comic of each type of birth control are done with a paired t-test. We use linear regression models to evaluate demographic correlates of the improvement in knowledge pre versus post intervention.

Results: Data collection is ongoing with 80 total anticipated participants by April 2019. To date, data reveals that the comics improved 92% of participants knowledge of a particular birth control method as compared to their baseline. Prior to learning about the information through a comic, 69% reported learning about contraception from family, peers, and the internet. The general reaction to the comics was favorable with 77% reporting that they really liked the comic and 23% responding a more neutral reaction to the comic. No participants report not liking the comic.The comics were reported to be easy to understand by 100% of participants.

Conclusions: Adolescents have been reported to have a generally favorable reaction to interacting with comics. Our preliminary results reveal that the comics used in our study can be a useful tool in the adolescent population to improve short term subjective knowledge on contraceptive options. Further, it appears that the format provides education in an easy to understand manner. Last, as the majority of participants note they seek information from non-medical sources, our data suggests that the birth control comics could be a superior method for contraception education amongst adolescents.

10. Training Pediatric Residents in Transgender Health-Is Clinical Exposure Alone Enough?

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Background: Transgender youth face significant health disparities and barriers to receiving quality, gender-affirming healthcare. One barrier is the limited number of trained pediatric providers. There is limited training for pediatric residents to ensure competence in providing affirming care to this vulnerable group. The objectives of this study were (1) to evaluate the impact of a transgender health training on resident knowledge and attitudes (2) compare mean knowledge and attitude scores between newly trained residents with no clinical exposure to a cohort of untrained residents with prior clinical exposure.

Methods: A two-hour, in-person, transgender health education module was developed after conducting a needs assessment with graduating pe-

diatric residents. Training content was designed in conjunction with four content experts and a transgender adolescent, prior to its delivery to 42 pediatric residents. Resident knowledge and attitudes were assessed before and after the session using a 17 item survey. Mean resident knowledge assessment scores before and after the training were compared using paired t-tests. Scores from newly trained residents with no clinical exposure were compared to a cohort of 21 untrained residents with clinical exposure using a two-sample t-test. Performance on individual questions were compared using Mann-Whitney, Chi-square or Fisher's Exact tests.

Results: Overall, 63% of pediatric residents (n=63) reported having no prior training in transgender health. Mean knowledge assessment scores increased significantly from 9.5 ± 1.9 on the pre-session assessment to 14.0 ± 1.1 on the post assessment ($p < 0.001$). Notable improvements were seen in the following areas: counseling about gender affirming pharmacologic agents ($p < 0.001$); awareness of local resources ($p < 0.001$); discussing use of affirming language with parents ($p < 0.001$); and understanding the difference between sexual orientation and gender identity ($p < 0.001$). Mean score for the clinical exposure group, 11.6 ± 2.2, was significantly lower than the post training group ($p < 0.001$).

Conclusions: This study demonstrates that a brief transgender health training can increase pediatric resident knowledge and attitudes about providing care to transgender youth. Both clinical exposure and dedicated training in transgender health improve resident knowledge and attitudes. In this study, dedicated training is superior to clinical exposure alone in increasing short-term resident knowledge and attitudes. Further investigation must be conducted to determine if these benefits are sustained or associated with improved patient health outcomes.

11. A Clinic Based Survey of Urban Youth Knowledge of PrEP Use for HIV Prevention

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Background: Despite improved treatment for HIV disease and FDA approved pre-exposure prophylaxis (PrEP) for HIV prevention in 2012, Washington DC continues to be an endemic city with an overall prevalence of 1.9% and 41% of new infections occurring in youth; almost double the national rate. The interest and uptake of PrEP in youth has been relatively understudied to date. This study sought to document the current level of awareness about and willingness to take PrEP in a sample of urban youth from our patient community, as well as changes in awareness between 2012 and 2018.

Methods: Adolescents and young adults (AYA) attending a health center in Washington, DC were invited to participate in a self-administered web-based REDCap survey designed to assess their knowledge, attitudes, and willingness to take PrEP. This survey is based on a similar instrument used 6 years earlier in the same population of youth. Patients were 13-24 year old, sexually experienced, and able to complete the survey in English. Parental consent was waived by the IRB. Statistical methods including descriptive analysis, and bivariable analysis using Chi-square and T-tests, were conducted.

Results: Between July-October 2018, 39 clinic attendees between 13-24 years were surveyed. Two results were excluded due to incomplete surveys and three HIV positive participants were excluded (n= 34). Data was compared to same age previously surveyed youth in 2012 (n= 43) with respect to sexual behaviors, condom use and self-perceived HIV-risk. In 2012, 7% of youth had previously heard of PrEP compared to 28% in 2018 (p=0.02). More youth in 2018 compared to 2012 perceived that PrEP use would result in decreased condom use (23% vs 68%, p= < 0.001). Actual PrEP use increased (0% vs 10%, p= 0.04). No statistically significant differences were observed regarding willingness to use PrEP, perceived ability to take a daily pill, or potential stigma associated with its use. Few (15%) participants reported being previously offered PrEP by a health care provider.

Conclusions: In our sample of urban clinic attending AYA, we found that PrEP knowledge and acceptability remained low, but there was general interest in the use of PrEP as prevention. PrEP use increased minimally among youth over the previous 6-year period; however, the relatively low levels of uptake indicates a need for increased education focused on youth about the use of PrEP as an adjuvant to condoms in HIV prevention. Clinicians should work to increase awareness among youth to ensure that populations that can benefit from PrEP are knowledgeable and able to access this prevention intervention.

12. Sonographic Predictors of Ovarian Torsion in Premenarchal Girls

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Background: Ovarian torsion (OT) is a gynecologic emergency often difficult to diagnose in premenarchal girls. While previous studies have assessed the utility of ultrasound in diagnosing OT in premenarchal patients, none have limited the analysis to surgically confirmed diagnosis of OT. The aim of this study is to describe sonographic predictors of surgically proven OT in premenarchal girls, compared to those whose adnexal surgery confirmed no OT.

Methods: This is a retrospective case-control study of premenarchal patients, aged 0-12, who underwent surgery and ultrasound imaging for ovarian cyst or ovarian torsion at a tertiary care referral center from 2006-2017. Patients with diagnoses of torsion of the ovary, adnexa, ovarian pedicle, or fallopian tube were identified as cases. Those with a diagnosis of an ovarian mass who underwent a laparoscopy or laparotomy without intraoperative diagnosis of OT were identified as controls. Pelvic ultrasounds were analyzed in detail by three radiologists, all of whom were blinded to the diagnosis. Chi-square test, Fisher's exact test, and Student's t-test were used for statistical comparisons. Approval of this study was granted by the Institutional Review Board.

Results: Thirty-two patients presented with acute abdominal pain requiring ultrasound imaging and subsequent diagnostic laparoscopy during the study period. Twenty-four patients (75%) had confirmed OT at the time of laparoscopy, while eight (25%) did not. Mean age in both groups was similar (10 years, SD = 0.4). Preoperative sonographic variables significantly associated with confirmed OT included presence of a focal lesion (57% vs 42%, $p < 0.05$), ovarian heterogeneity (100% vs 71%, $p < 0.05$), and presence of follicles (78% vs 28%, $p < 0.05$). Volume of the affected ovary (F=0.65) and volume ratio of the affected to unaffected ovary (F=0.70) were not significantly associated with OT. Absence of arterial/venous color Doppler (23% vs 30%), absence of arterial/venous waveforms (18% vs 34%), asymmetry of color Doppler (50% vs 81%), and presence of a whirlpool sign (14% vs 13%) were also not predictive of OT.

Conclusions: In premenarchal patients, the only sonographic predictors of surgically confirmed OT included presence of a focal lesion, ovarian heterogeneity, and presence of ovarian follicles. However, none of these variables were unique to girls with OT. The decision to proceed with diagnostic laparoscopy in premenarchal patients with suspected OT can be aided by these specific sonographic findings, but should ultimately be based on a high clinical suspicion.

13. Implant Continuation in Adolescents with Bothersome Bleeding With and Without an Intervention

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Background: The etonogestrel (ENG) implant is a highly effective long-acting reversible contraceptive. Menstrual irregularities are often reported and may be an important factor for discontinuation. Studies examining